

ABSTRACT OF THE DISCLOSURE

An integrated circuit and method of operation used in an audio playback device includes a host interface, a processing module, a multimedia module, a memory, and a filter co-processor. The processing module operably couples to the host interface and the filter co-processor. The processing module operably couples to the host interface and the multimedia module operably couples to the processing module. The memory operably couples to the processing module and to the multimedia module in which digital audio information is stored. The filter co-processor operably couples to the processing module and to the memory, wherein at the direction of the processing module the filter co-processor retrieves digital audio information from the memory and filters the digital audio information. In a playback mode, the filter co-processor retrieves the digital audio information from the memory, filters the digital audio information to produce filtered digital audio information, and writes the filtered digital audio information to the memory. In a recording mode the multimedia module receives incoming audio information, converts the incoming audio information to incoming digital audio information, and writes the incoming digital audio information to memory.